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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,385	07/03/2003	Raymond Hobbs	12207.0900	7221

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EXAMINER

MAUST, TIMOTHY LEWIS

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,385

Applicant(s)

HOBBS, RAYMOND

Examiner

Timothy L. Maust

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-40 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-40 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/9/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16, 17, 20-23, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Graham et al.

In regard to claim 16, 20, 22, 23 and 25, the Graham et al. reference discloses a “system” 1 for handling hydrogen comprising a “hydrogen source” 2, “hydrogen handling equipment” (pressure vessels 6) partially contained within rack 16, a “floor” (bottom panel of housing 60), a “dispenser” 3 and “valves”, a “compressor” 7, “piping” 9, “leaning walls” 20 (the walls bow out from the floor that supports the hydrogen equipment and therefore lean away from the equipment; see Figures 3a and 3b, which clearly show bowed front and rear walls) and an “open top” (defined by ventilation grate 28) defining an area larger than “an area” of the floor of housing 60, as claimed.

In regard to claim 17, see abstract.

Art Unit: 3751

In regard to claims 21 and 26, see “electrolysis unit” 34 in Figure 4b and column 9, lines 29-39.

Claims 27, 29, 31, 34, 38 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Eichelberger et al.

In regard to claims 27, 31 and 44, the Eichelberger et al. reference discloses a “hydrogen system” 20 comprising “hydrogen handling equipment” 1 including “piping” 5 and “valves” 4, a “sealed enclosure” 14 and “vent pipe” 6, as claimed.

In regard to claim 29, see column 13, lines 41-67.

In regard to claim 34, the system is capable of the claimed function.

In regard to claim 38, “piping” 5 is an integral part of “vent pipe” 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al. in view of Heffel et al. (6,612,269)

The Graham et al. reference discloses the invention substantially as claimed (discussed supra), but doesn’t disclose dispensing a mixture of hydrogen

Art Unit: 3751

and natural gas. However, the Heffel et al. reference discloses another dispensing system that dispenses a mixture of hydrogen and natural gas to an engine of a vehicle to increase the energy density produced by hydrogen alone. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Graham et al. system (if not already) to dispense, as a mixture, both hydrogen and natural gas, in view of the teachings of the Heffel et al. reference in order to increase energy density.

Claims 27, 29-31, 34-37, 39, 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedwiecki et al. in view of Eichelberger et al.

In regard to claim 27, 29, 31, 34, 35, 39, 40 and 44, the Niedwiecki et al. reference discloses a "hydrogen handling system" 14 including "piping" and "valves" (see Figures 4 and 6), a "sealed enclosure" 16, "compressor" 50 and "vent pipe" 36; but doesn't disclose the location of the vent pipe terminating higher than the equipment. However, the Eichelberger et al. reference discloses another hydrogen handling system (discussed supra) having a vent pipe 6 terminating above the handling equipment to vent gasses safely away from the equipment. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to position the vent 36 of the Niedwiecki et al. device above the hydrogen equipment in view of the teachings of the Eichelberger et al. reference in order to vent gasses safely away from the hydrogen equipment. Further, the system can be stationary or mobile.

Art Unit: 3751

In regard to claim 30, inert gas (N₂) is introduced into feed line 40 to purge the system of any air.

In regard to claim 34, the Niedwiecki et al. device is capable of dispensing to a natural gas system.

In regard to claims 36 and 37, it would have been an obvious matter of design choice to place pressure vessels 100 vertically instead of horizontally, since it appears that the invention would perform equally well with horizontal pressure vessels.

In regard to claim 28, the Niedwiecki et al. and Eichelberger et al. references disclose the invention substantially as claimed (discussed supra), but do not disclose the walls being cylindrical. It would have been an obvious matter of design choice to make the walls cylindrical, since applicant has not disclosed that a cylindrical wall rather than a rectangular wall solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a rectangular wall.

Claim 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger et al. in view of Heffel et al. (6,612,269)

The Eichelberger et al. reference discloses the invention substantially as claimed (discussed supra), but doesn't disclose dispensing a mixture of hydrogen and natural gas. However, the Heffel et al. reference discloses another dispensing system that dispenses a mixture of hydrogen and natural gas to an

Art Unit: 3751

engine of a vehicle to increase the energy density produced by hydrogen alone. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Eichelberger et al. system (if not already) to dispense, as a mixture, both hydrogen and natural gas, in view of the teachings of the Heffel et al. reference in order to increase energy density.

Claim 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedwiecki et al. in view claim 27 above and further in view of Heffel et al. (6,612,269)

The Niedwiecki et al. reference discloses the invention substantially as claimed (discussed supra), but doesn't disclose dispensing a mixture of hydrogen and natural gas. However, the Heffel et al. reference discloses another dispensing system that dispenses a mixture of hydrogen and natural gas to an engine of a vehicle to increase the energy density produced by hydrogen alone. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Niedwiecki et al. system (if not already) to dispense, as a mixture, both hydrogen and natural gas, in view of the teachings of the Heffel et al. reference in order to increase energy density.

Response to Arguments

Applicant's arguments, see papers filed on 6/21/06, with respect to Claims 27-40 and 44 in view of Graham et al. have been fully considered and are

Art Unit: 3751

persuasive. The rejection in view of Graham et al. of Claims 27-40 and 44 has been withdrawn.

Applicant's arguments with respect to claims 16-26 in view of Graham et al., filed on 6/21/06, have been fully considered but they are not persuasive. See rejection discussed supra. Further, Graham et al. clearly shows bowed walls in Figures 3a and 3B making the open top area larger than "an area" of housing floor 60.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Maust whose telephone number is (571) 272-4891. The examiner can normally be reached on Tue. - Thur. 6:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine R. Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy L Maust
Primary Examiner
Art Unit 3751

Tlm
8/30/06